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April 18, 2013

Preclusion Showing for Auction 83

Application BNPFT-20030313 BJF

Narrative

This Exhibit provides a preclusion analysis to an Auction 83 construction permit application for an FM translator on Channel 244 in Baltimore, MD with file number BNPFT 20030313BJF. The tech box proposal (short form application) was filed in a filing window for Auction 83. This Exhibit provides a preclusion showing required in a Public Notice¹ of a window to amend tech box proposals for further processing.

This application proposes minor modifications to the proposed transmitter facility filed in the original short form application. Specifically, the antenna is rotated to 243 degrees. No other modifications are proposed.

Required Showings

The proposed transmitter facility is located inside the Market Grid of the Baltimore market. (See attached map in Figure 1.) The Baltimore market is listed as Spectrum Limited Market #21 in Appendix A of the Fourth Report and Order.² The proposed transmitter facility is located within 39km of two Spectrum Limited Market grids (shown in **Error! Reference source not found.**): #107, York, and #8, Washington, DC. The required showing is identified as Test B, in Attachment B to the DA 13-427 Public Notice.

All market protected channel/point combinations were generated using the Commission's updated LPFM grid tool. Per Public Notice DA 13-427, Test B, only co-channel and adjacent channels were protected; no protection is required on other channels to auction 83 participants; no I.F. channel protection is required; FM translators were protected; and all existing CPs and applications were protected.

A portion of the printout from the LPFM grid tool for each market is provided in Figure 2-6. The preliminary section confirms the parameters studied and provides a summary of

¹ *Public Notice Media Bureau Announces FM Translator Auction 83 Filing Window and Filing Procedures*, DA13-427, released February 26, 2013. (Auction 83 Preclusion Showings)

² *In the Matter of Creation of a Low Power Radio Service, Amendment of Service and Eligibility Rules for FM Broadcast Translator Stations, Fourth Report and Order and Third Order on Reconsideration*, FCC 12-19, released March 19, 2012.

the channels. In the Baltimore market, there are no protected points on channel 244. Similarly there are no protected points on first adjacent channels 243 or 245.

Similar output data are shown for the York market in Figure 3. This market has been found to have 73 preclusion channel-points on 1st adjacent channel 243 (shown in Figure 3). The most preclusive siting occurs at grid location Point #195 at 39-50-45N, 076-34-41W (shown in Figure 4).

The data are shown for the Washington DC market in Figure 5. This adjacent market has been found to have 407 preclusion points on co-channel 244 (shown in Figure 6). The preclusive siting occurs at the following grid locations: Point #558 at 39-08-42N, 077-04-12W, Point #726 at 38-50-42N, 077-10-12W, Point #953 at 39-00-42N, 077-17-12W, Point #615 at 39-03-42N, 077-06-12W, Point #435 at 38-38-42N, 077-01-12W, and Point #755 at 38-48-42N, 077-11-12W (shown in Figure 6).

The distance between each preclusion point and the proposed translator site was calculated using the Distance tool provided by the FCC website. Next, the required spacing between the LPFM channel-point combination and the proposed translator site was computed. To determine the required spacing, the FM Curves tool of the FCC website was first used to compute the distance to the 60 dBu contour. Then FCC Rule 73.807(d)(1) was examined to determine the required spacing for co-channel and adjacent channels. The distance from the proposed translator location to the proposed translator 60-dBu contour is a maximum of 6.8km. According to FCC Rule 73.807 (d) (1), if the distance to the translator 60-dBu contour is 7.3 km or less, then the required minimum spacing is 15km for adjacent channels and 26km for co-channels (these radii are shown in Figure 1). Each point is a minimum of 26.6km greater than the required spacing. The findings from the analysis of each preclusion point are summarized in Table 1. The preclusion points are also plotted in Figure 1.

Table 1: Preclusive Points Contour Analysis

Market#	Point#	Distance km	Azimuth degrees	Required Spacing km	Distance beyond required spacing km
107	195	50.9	357	15	35.9
8	558	52.618	239.26	26	26.6
8	726	80.867	221.92	26	54.9
8	953	76.375	236.99	26	50.4
8	615	60.199	233.10	26	34.2
8	435	92.093	206.51	26	66.1
8	755	84.606	220.99	26	58.6

Figure 2: LPFM Grid Tool Output: Baltimore, MD (Market #21)

BALTIMORE, MD
 Latitude 39-17-25
 Longitude 076-36-45
 Grid Size 31 x 31
 Micro FM 100 Watts at 30m HAAT
 Co-Channel and 1st Adjacent Protected
 2nd Adjacent Channel Not Protected
 3rd Adjacent Channel Not Protected
 I.F. Not Protected
 TV Channel 6 Protected
 CP Records Protected
 APP Records Protected
 FM Translators Protected
 TV Channel 6 Translators/LP Protected
 Auc83 FX App Records Not Protected

Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail
200	0	220	0	240	0	260	0	280	0
201	0	221	0	241	0	261	0	281	0
202	0	222	0	242	0	262	0	282	0
203	0	223	0	243	0	263	0	283	0
204	0	224	432	244	0	264	0	284	59
205	0	225	0	245	0	265	0	285	0
206	0	226	0	246	0	266	0	286	0
207	0	227	0	247	0	267	0	287	0
208	0	228	0	248	4	268	97	288	0
209	0	229	0	249	0	269	0	289	0
210	0	230	0	250	0	270	0	290	0
211	0	231	0	251	0	271	0	291	0
212	0	232	79	252	0	272	270	292	0
213	0	233	0	253	0	273	0	293	0
214	0	234	0	254	0	274	0	294	0
215	0	235	0	255	0	275	0	295	0
216	0	236	0	256	0	276	0	296	0
217	0	237	0	257	0	277	0	297	0
218	0	238	0	258	0	278	0	298	0
219	0	239	0	259	0	279	0	299	0
								300	0

Total	941								

Figure 4: LPFM Grid Tool Output: Market #107, York; Preclusion Points for CH243

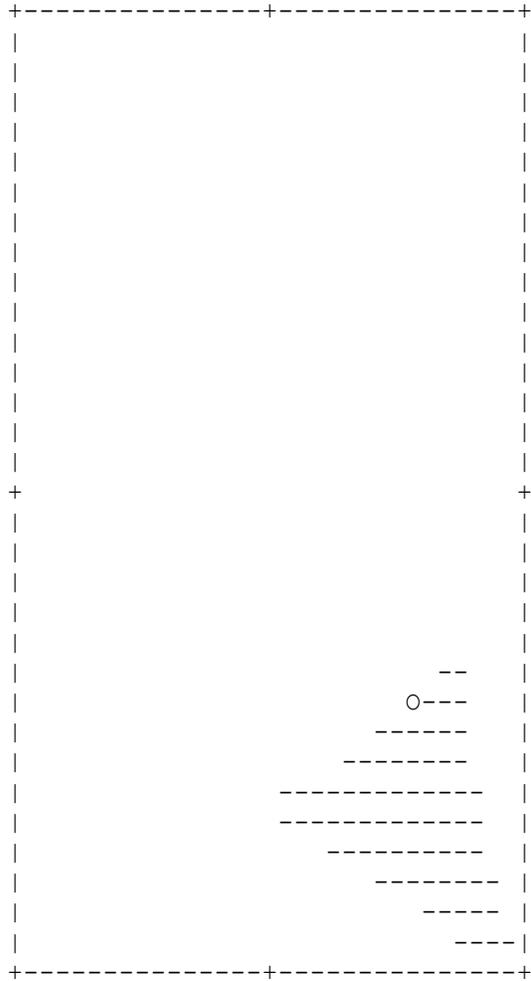
BALTIMORE-York, MD

Latitude 39-57-45

Longitude 076-43-41

Least preclusive siting

Availability of Channel 243 (X)



Point #195 at 39-50-45 076-34-41

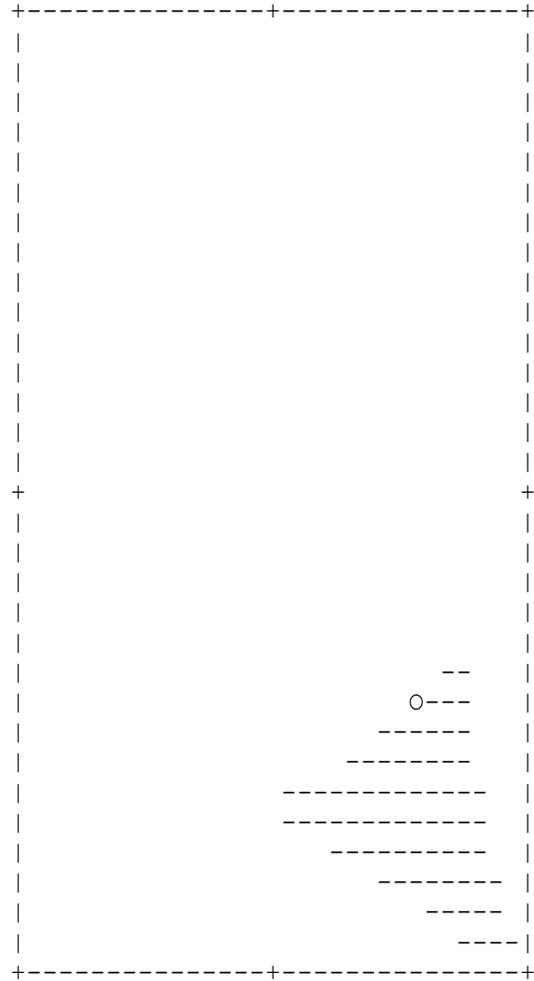
BALTIMORE-York, MD

Latitude 39-57-45

Longitude 076-43-41

Most preclusive siting

Availability of Channel 243 (X)



Point #195 at 39-50-45 076-34-41

Certification

I hereby certify that I am a licensed professional engineer and the foregoing report or statement was prepared by me but may include work performed by others under my supervision or direction. The statements of fact contained herein are believed to be true and correct based on my personal knowledge, information and belief unless otherwise stated; with respect to facts not known of my own personal knowledge, I believe them to be true and correct based on their origin from sources known to me to be generally reliable and accurate. I have prepared this document with due care and in accordance with applicable standards of professional practice.

Gregory L. Best, P.E.